

IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

[0017] These and/or other aspects and advantages of the invention will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings of which:

FIG. 1 illustrates an example of a tilted disc;

FIG. 2 is a block diagram for explaining an apparatus for detecting a tilted disc, according to the present invention;

FIGS. 3A through 3C illustrate signals for explaining an operation of the apparatus shown in FIG. 2;

FIG. 4 is a flowchart for explaining a method for detecting a tilted disc, performed in the apparatus shown in FIG. 2; and

FIG. 5 is a detailed flowchart illustrating operation 360 of ~~FIG. 4.~~ FIG. 4; and

FIG. 6 is a flowchart for explaining a method of adjusting a pickup angle after a tilted disc is detected.

[0052] In an aspect of the present invention, the pickup angle of the pickup unit 210 is adjusted with reference to operations 410 through 440 of Figure 6 as follows.

[0053] The pickup unit 210 is positioned at a plurality of locations of the optical disc 100 (operation 410). Light is irradiated on N locations including first, second, and N-th locations of a region of the optical disc 100 on which data is recorded, then a jitter signal is generated according to the light reflected from the optical disc 100 (operation 420).

[0054] In other words, the pickup angle of the pickup unit 210 in which the value of the jitter signal is a minimum value, is determined by radiating light on the optical disc ~~400~~ 100 while changing the pickup angle of the pickup unit 210 (operations 420 and 430). N angles of the pickup unit 210 including first, second, and N-th angles are determined at each of the N locations. An interval between the N locations on the optical disc 100 on which light is irradiated may be large on an inner circumference of the optical disc 100 and small on an outer circumference of the optical disc 100.

[0055] After the N angles of the pickup unit 210 are determined at each of the N locations, when the data recorded on the optical disc 100 is reproduced, the pickup unit 210 maintains the first angle during a data duration from the first location to the second location and maintains the second angle during a data duration from the second location to the third location. The pickup angle of the pickup unit 210 is adjusted during the other durations in the same way (operation 440).